

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Previously Presented) An organic electronic device, comprising:
a deposition surface having at least one deposition region defined thereon;
a plurality of organic layers, wherein each said organic layer is in said deposition region on said deposition surface and a first portion of at least one of said organic layers is cross-linked so that the first portion is insoluble in an organic solution, and the first portion includes one of an ester, a silane, an amine, a di-aromatic bromide, a photo-acid, an amide, a multivalent cation, or an acidic group as a cross-linking material, wherein
the plurality of organic layers includes a hole transport layer, an emissive layer on the hole transport layer, an electron transport layer on the emissive layer and an electron injection layer on the electron transport layer; and
one of the emissive layer or the electron transport layers is cross-linked.
2. (Previously Presented) A device according to claim 1 wherein one of said plurality of organic layers is a first organic layer and one is a second organic layer, the first organic layer being closer to the deposition surface than the second organic layer and the first organic layer being the cross-linked organic layer.
3. (Canceled)
4. (Previously Presented) A device according to claim 1 wherein at least one layer of said plurality of organic layers is capable of performing at least one of a hole blocking function, an electron blocking function, an optical confinement/wave-guiding function, an electron injection function, a hole injection function or an absorption function.

5. (Canceled)

6. (Previously Presented) A device according to claim 1 wherein at least one of the organic layers is formed from an organic solution that includes cross-linking groups.

7. (Previously Presented) A device according to claim 1 wherein at least one of the organic layers is formed from an organic solution that includes an initiating agent.

8. (Canceled)

9. (Previously Presented) A device according to claim 1 wherein said organic electronic device is an OLED device.

10. (Previously Presented) A device according to claim 9 wherein said deposition surface is a lower electrode layer.

11. (Previously Presented) A device according to claim 10 wherein said emissive layer is capable of emitting light upon charge recombination.

12. (Original) A device according to claim 11 further comprising a cathode layer disposed over said plurality of organic layers.

13. (Previously Presented) A device according to claim 1 wherein said hole transport layer is fabricated from a PEDOT:PSS solution including constituents capable of cross-linking.

14. (Original) A device according to claim 1 wherein said device behaves as an organic transistor.

15. (Original) A device according to claim 1 wherein said device behaves as an organic opto-electronic device.
16. (Previously Presented) A device according to claim 1 wherein said plurality of organic layers includes at least a first layer and a second layer and the first layer includes a different material from the second layer.
17. (Previously Presented) A device according to claim 1 wherein said hole transport layer is configured to perform an electron blocking function.
18. (Previously Presented) A device according to claim 1 wherein said hole transport layer is configured to perform a wave-guiding function.
19. (Previously Presented) A device according to claim 4 wherein a single organic layer of the plurality of organic layers performs said electron transport and hole blocking functions.
20. (Previously Presented) A device according to claim 4 wherein said electron transport function is performed in an organic layer of said plurality of organic layers.
21. (Previously Presented) A device according to claim 4 wherein said wave-guiding function is performed in an organic layer of said plurality of organic layers.
22. (Previously Presented) A device according to claim 4 wherein said electron injection function is performed in an organic layer of said plurality of organic layers.
- 23-24. (Canceled)

25. (Previously Presented) The device of claim 1, wherein the deposition surface includes an electrode.

26. (Previously Presented) An organic electronic device, comprising:
a deposition surface; and
a plurality of organic layers, wherein a first portion of said organic layers is cross-linked to render said first portion of said organic layers insoluble;

wherein at least one cross-linking agent in the first portion adds functionality to the first portion that the first portion does not have without the cross-linking agent and the cross-linking agent adds the functionality in addition to cross-linking the first portion and the functionality added by the cross-linking agent is one of hole transport, electron transport, electron injection, hole blocking, optical confinement or waveguiding.

27. (Canceled)

28. (Previously Presented) The device of claim 26, wherein at least one of the first or second organic layers is an emitting layer or contains a light-responsive material.

29. (Previously Presented) The device of claim 26, wherein said plurality of organic layers includes at least a first organic layer and a second organic layer, the first organic layer being closer to the deposition surface than the second organic layer and the first organic layer being a cross-linked organic layer.

30. (Previously Presented) The device of claim 29, wherein said plurality of organic layers includes a hole transport layer.

31. (Previously Presented) The device of claim 30, wherein said hole transport layer is fabricated from a PEDOT:PSS solution including constituents capable of cross-linking.

32. (Previously Presented) The device of claim 30, wherein said hole transport layer is configured to perform an electron blocking function.

33. (Previously Presented) The device of claim 30, wherein said hole transport layer is configured to perform a wave-guiding function.

34. (Previously Presented) The device of claim 36, wherein said electron injection function is performed in an organic layer of said plurality of organic layers.

35. (Previously Presented) The device of claim 33, wherein said wave-guiding function is performed in an organic layer of said plurality of organic layers.

36. (Previously Presented) The device of claim 30, wherein at least one layer of said plurality of organic layers is capable of performing at least one of a hole blocking function, an electron blocking function, an electron transport function, a hole transport function, an optical confinement/wave-guiding function, an electron injection function, a hole injection function, an emission function, an absorption function, or a chemical, physical or photophysical sensor function.

37. (Previously Presented) The device of claim 36, wherein a single organic layer of the plurality of organic layers performs said electron transport and hole blocking functions.

38. (Previously Presented) The device of claim 36, wherein said electron transport function is performed in an organic layer of said plurality of organic layers.

39. (Previously Presented) The device of claim 26, wherein at least one of the organic layers is formed from an organic solution that includes cross-linking groups.

40. (Previously Presented) The device of claim 26, wherein at least one of the organic layers is formed from an organic solution that includes an initiating agent.

41. (Previously Presented) The device of claim 26, wherein said organic electronic device is an OLED device.

42. (Previously Presented) The device of claim 41, wherein said deposition surface is a lower electrode layer.

43. (Previously Presented) The device of claim 42, wherein at least one of said plurality of organic layers is an emissive layer, said emissive layer capable of emitting light upon charge recombination.

44. (Previously Presented) The device of claim 43, further comprising a cathode layer disposed over said plurality of organic layers.

45. (Previously Presented) The device of claim 26, wherein said device behaves as an organic transistor.

46. (Previously Presented) The device of claim 26, wherein said device behaves as an organic opto-electronic device.

47. (Previously Presented) The device of claim 26, wherein said plurality of organic layers includes at least a first layer and a second layer and the first layer includes a different material from the second layer.

48. (Previously Presented) The device of claim 26, wherein the deposition surface includes an electrode.

49. (Previously Presented) The device of claim 26, wherein:
the plurality of organic layers includes a hole transport layer, an emissive layer on the hole transport layer, an electron transport layer on the emissive layer and an electron injection layer on the electron transport layer; and
one of the emissive layer or the electron transport layers is cross-linked.
50. (Cancelled)
51. (Cancelled)
52. (New) The device of claim 1, wherein the first portion includes one of a silane, a di-aromatic bromide, a photo-acid, a multivalent cation, or an acidic group as a cross-linking material.